STATE OF MARYLAND

DHMH

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July 20, 2012

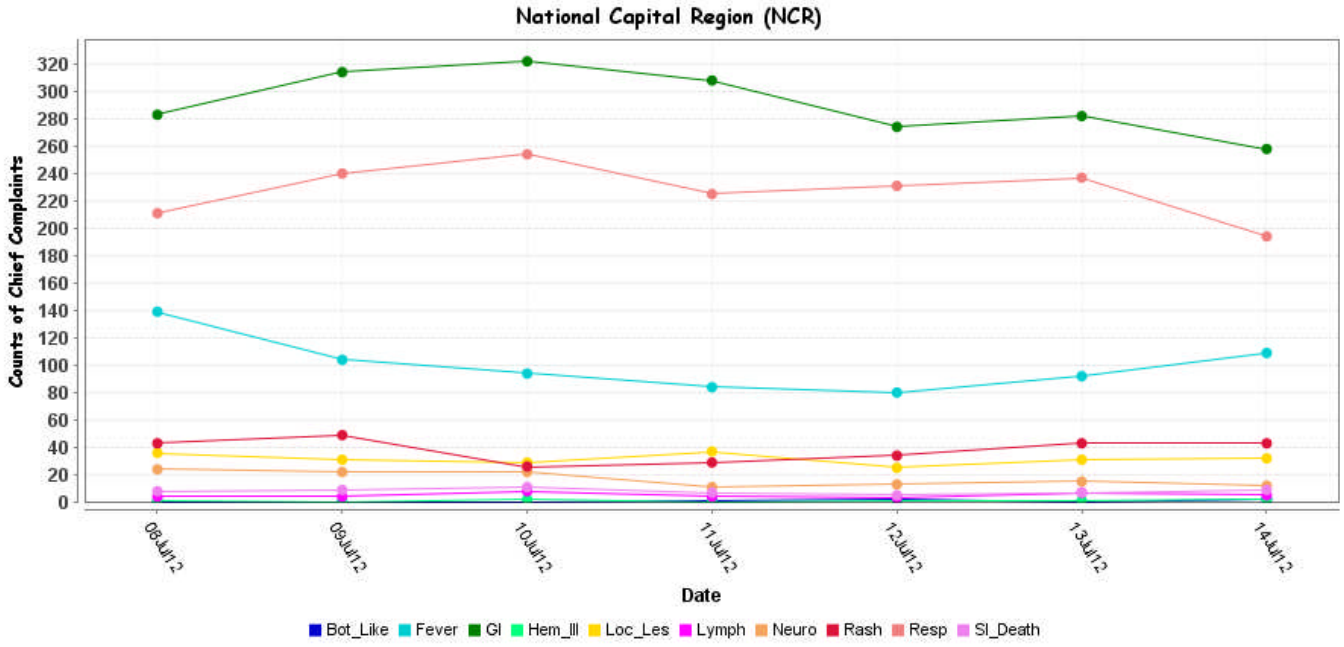
Public Health & Emergency Preparedness Bulletin: # 2012:28
Reporting for the week ending 07/14/12 (MMWR Week #28)

CURRENT HOMELAND SECURITY THREAT LEVELS

National: **No Active Alerts**
Maryland: **Level One (MEMA status)**

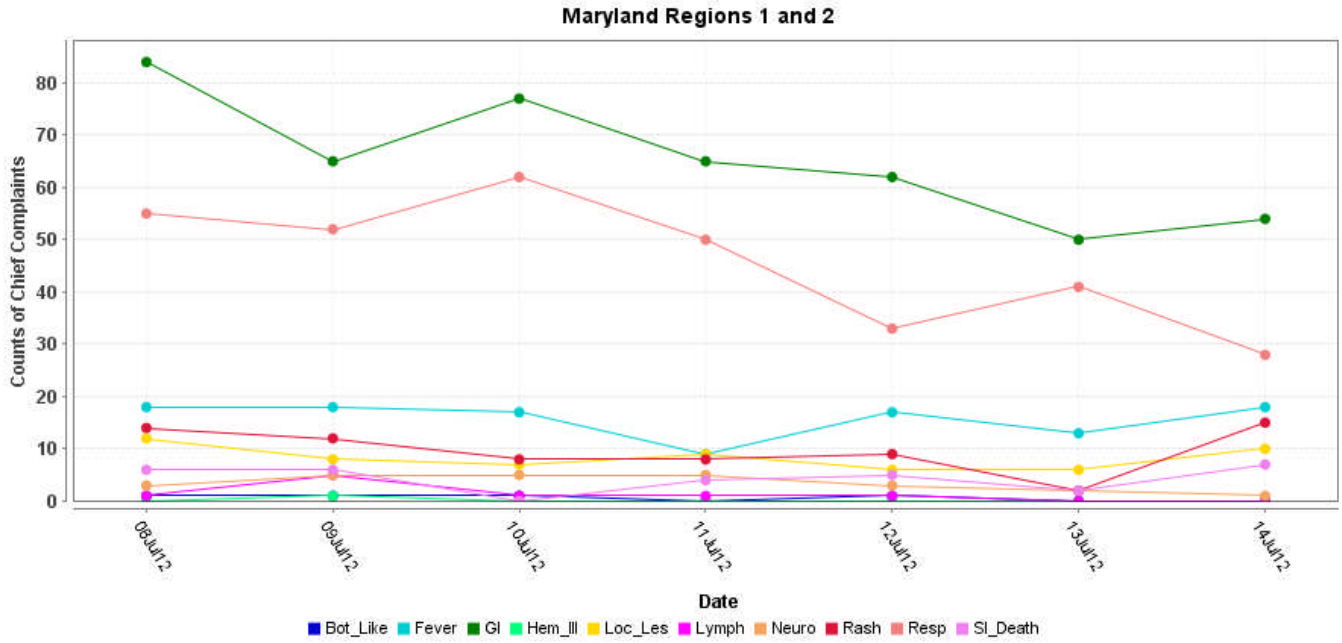
SYNDROMIC SURVEILLANCE REPORTS
ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics):
Graphical representation is provided for all syndromes, excluding the "Other" category, all age groups, and red alerts are circled. Red alerts are generated when observed count for a syndrome exceeds the 99% confidence interval. Note: ESSENCE – ANCR uses syndrome categories consistent with CDC definitions.

Overall, no suspicious patterns of illness were identified. Track backs to the health care facilities yielded no suspicious patterns of illness.

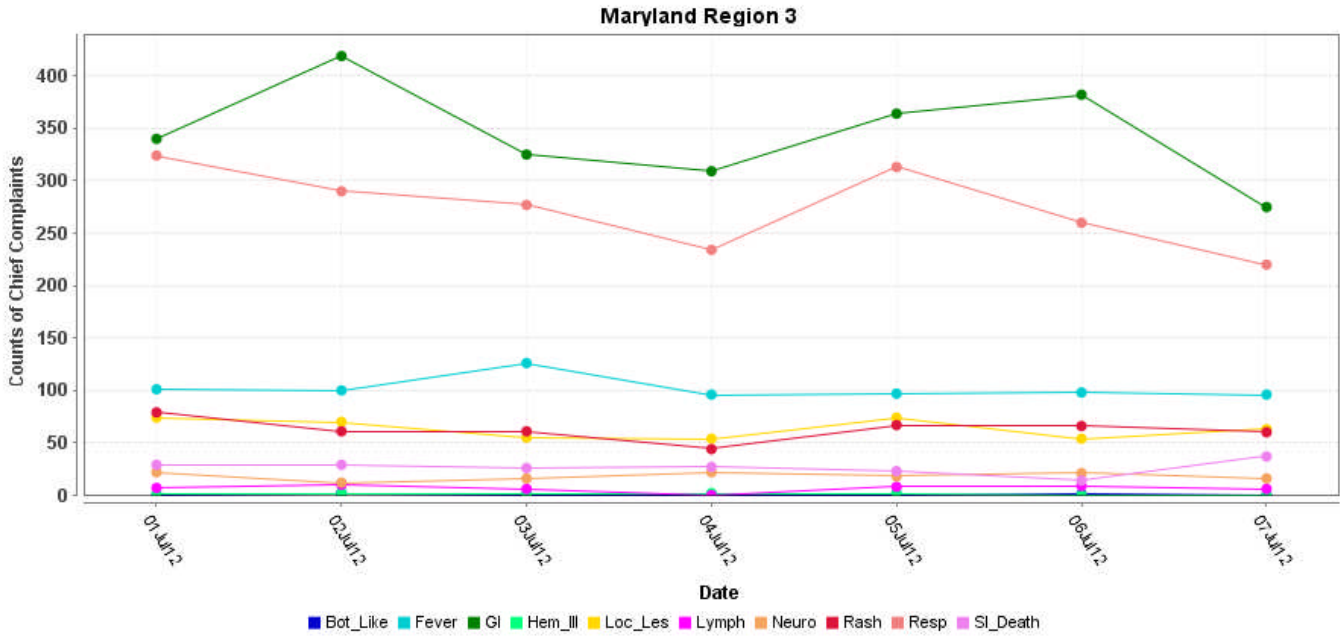


*Includes EDs in all jurisdictions in the NCR (MD, VA, and DC) reporting to ESSENCE

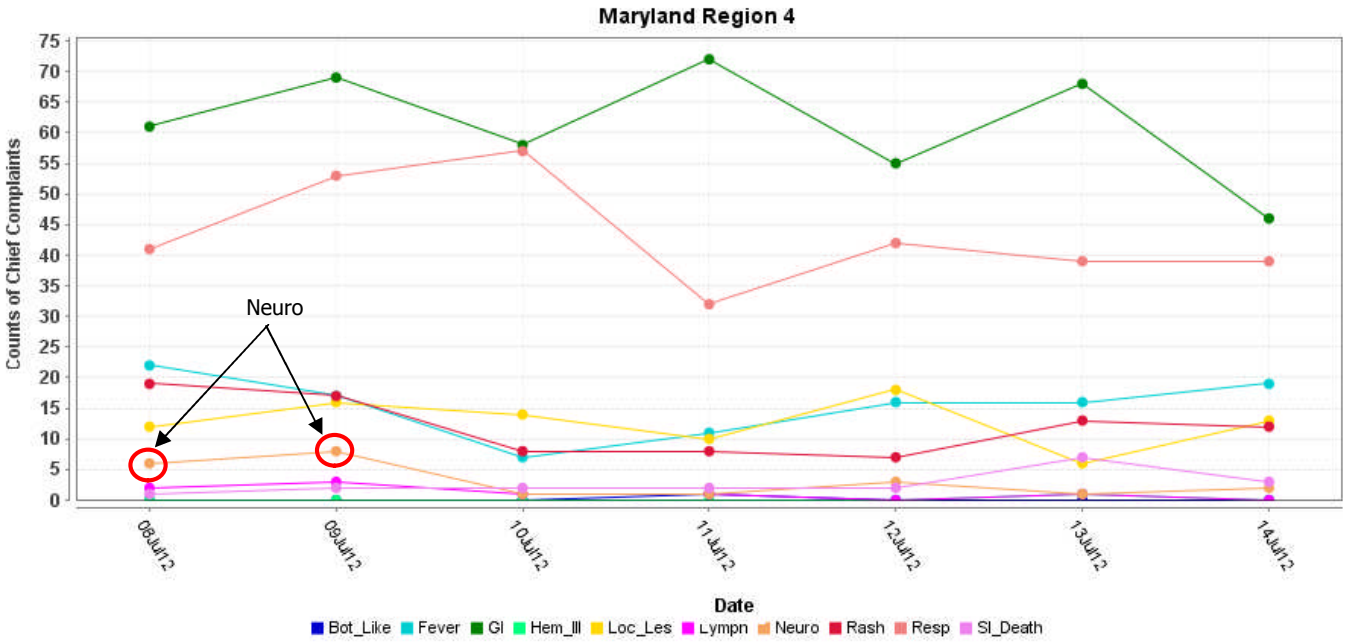
MARYLAND ESSENCE:



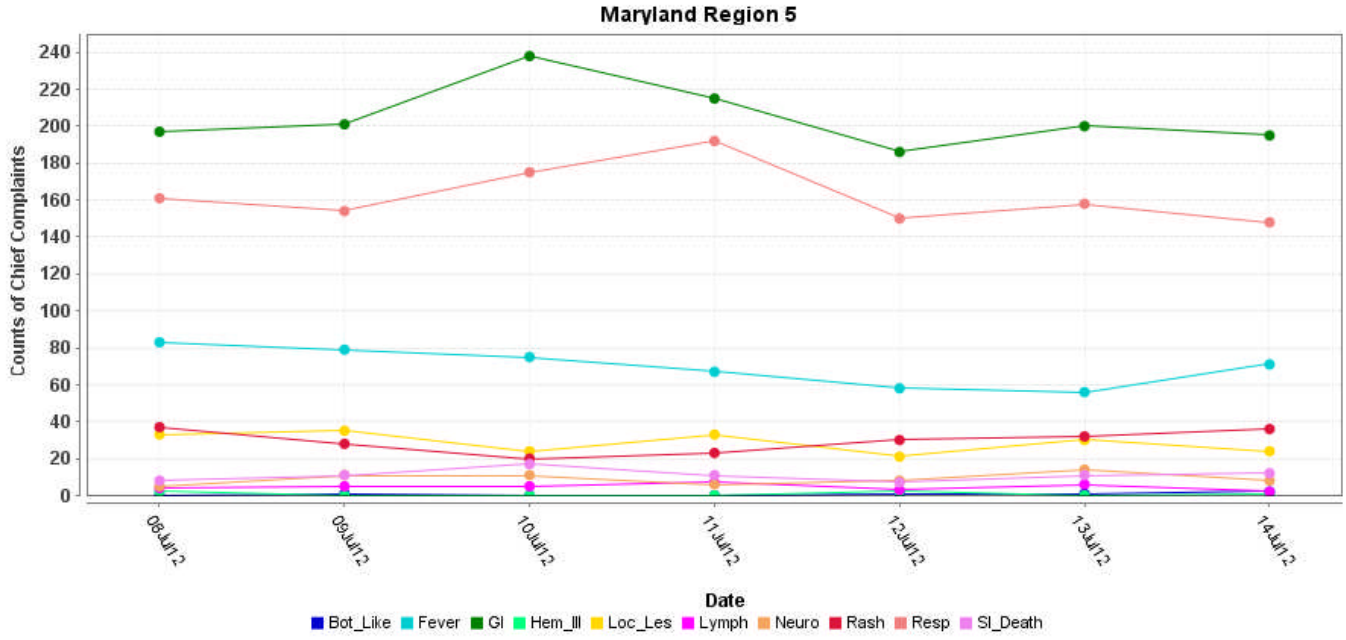
* Region 1 and 2 includes EDs in Allegany, Frederick, Garrett, and Washington counties reporting to ESSENCE



* Region 3 includes EDs in Anne Arundel, Baltimore City, Baltimore, Carroll, Harford, and Howard counties reporting to ESSENCE



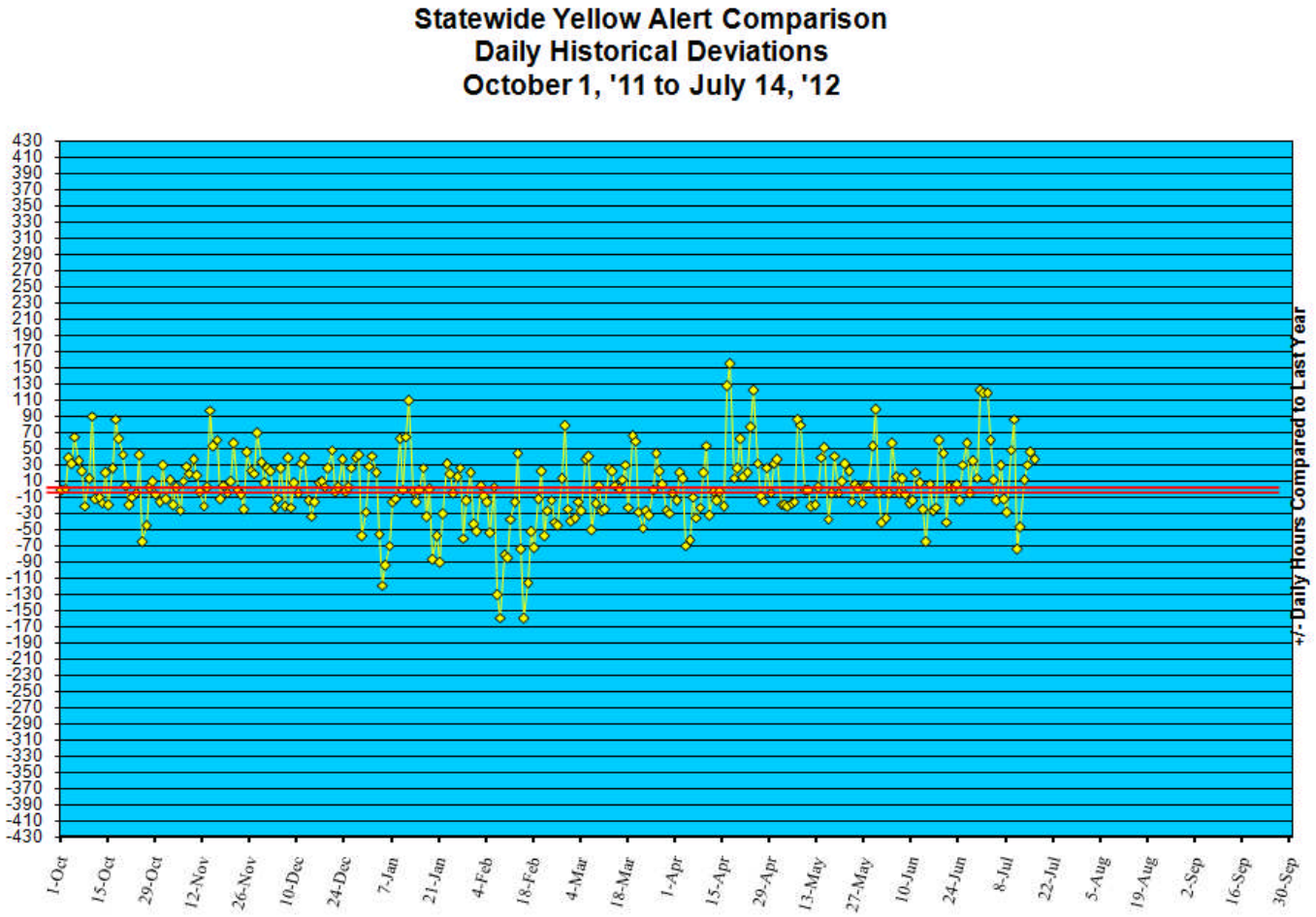
* Region 4 includes EDs in Cecil, Dorchester, Kent, Somerset, Talbot, Wicomico, and Worcester counties reporting to ESSENCE



* Region 5 includes EDs in Calvert, Charles, Montgomery, Prince George's, and St. Mary's counties reporting to ESSENCE

REVIEW OF EMERGENCY DEPARTMENT UTILIZATION

YELLOW ALERT TIMES (ED DIVERSION): The reporting period begins 10/01/11.



REVIEW OF MORTALITY REPORTS

Office of the Chief Medical Examiner: OCME reports no suspicious deaths related to an emerging public health threat for the week.

MARYLAND TOXIDROMIC SURVEILLANCE

Poison Control Surveillance Monthly Update: Investigations of the outliers and alerts observed by the Maryland Poison Center and National Capital Poison Center in June 2012 did not identify any cases of possible public health threats.

REVIEW OF MARYLAND DISEASE SURVEILLANCE FINDINGS

COMMUNICABLE DISEASE SURVEILLANCE CASE REPORTS (confirmed, probable and suspect):

Meningitis:	**Aseptic**	**Meningococcal**
New cases (July 8 – July 14, 2012):	13	0
Prior week (July 1 – July 7, 2012):	13	0
Week#28, 2011 (July 9 – July 15, 2011):	13	0

4 outbreaks were reported to DHMH during MMWR Week 28 (July 8-14, 2012)

1 Foodborne outbreak
1 outbreak of GASTROENTERITIS/FOODBORNE associated with a Private Home

1 Respiratory illness outbreak
1 outbreak of AFRD in a Nursing Home

2 Rash illness outbreaks
2 outbreaks of HAND, FOOT, AND MOUTH DISEASE in Daycare Centers

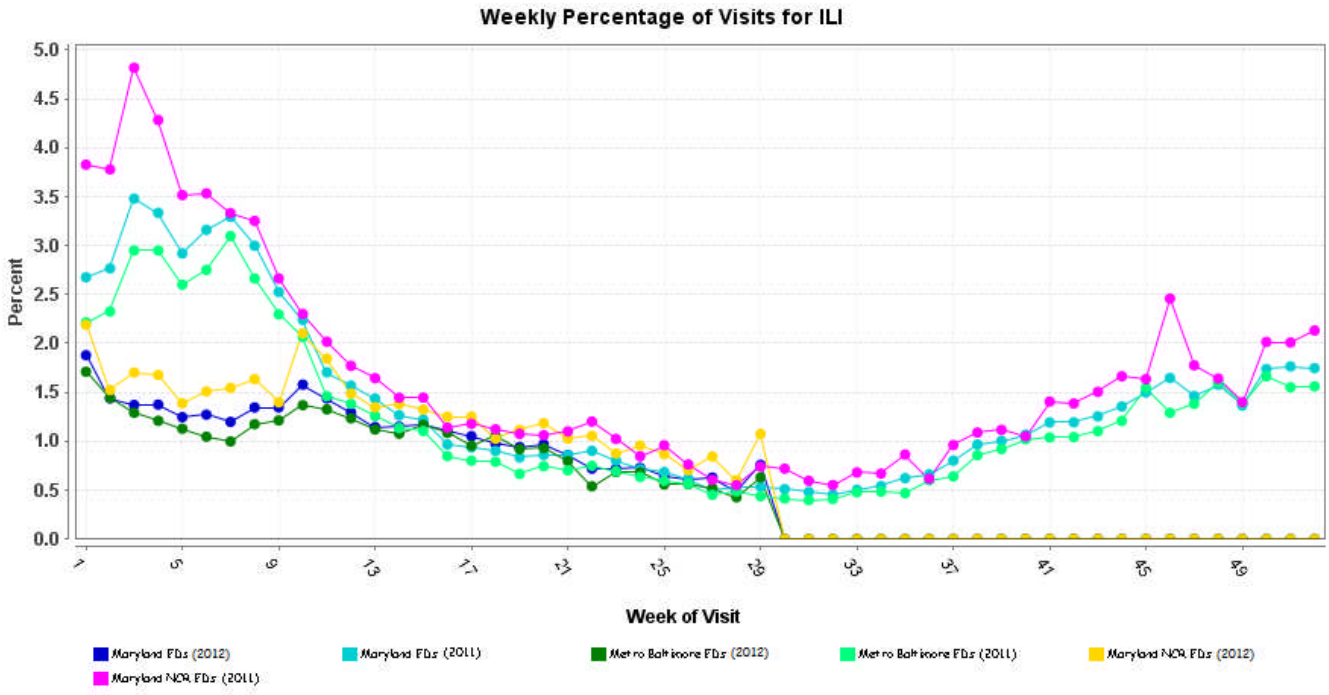
MARYLAND SEASONAL FLU STATUS

Seasonal Influenza reporting occurs October through May.

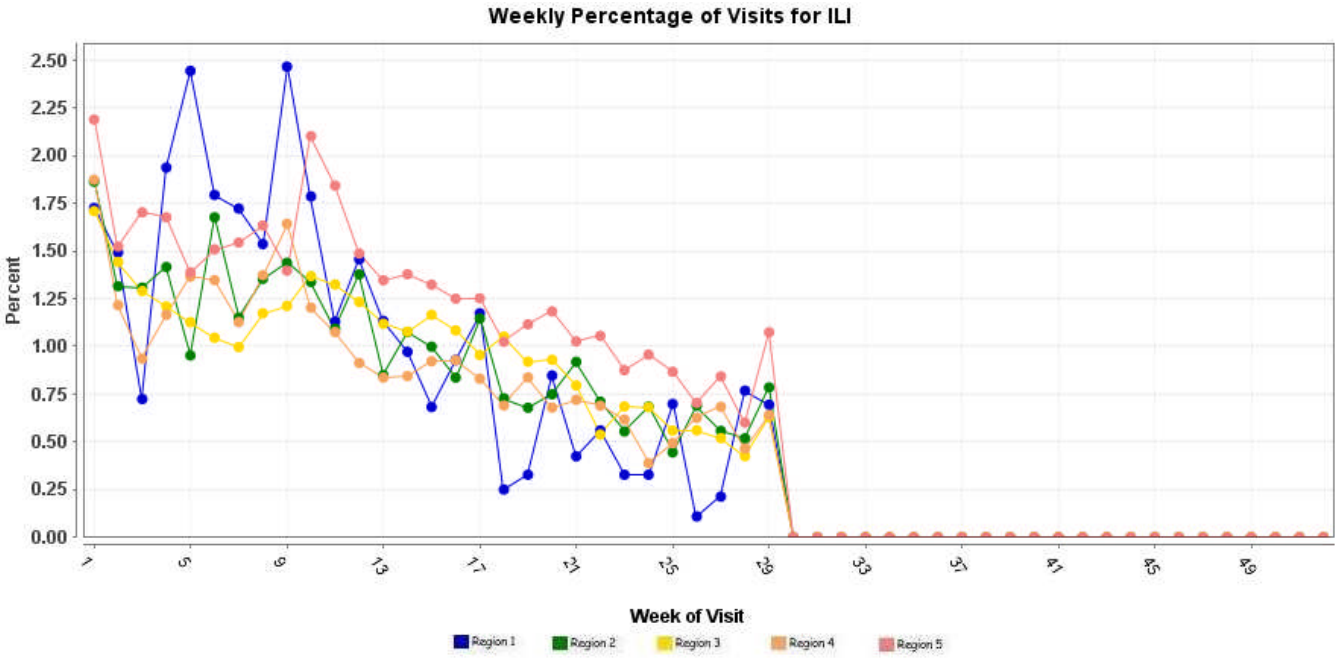
SYNDROMIC SURVEILLANCE FOR INFLUENZA-LIKE ILLNESS

Graphs show the percentage of total weekly Emergency Department patient chief complaints that have one or more ICD9 codes representing provider diagnoses of influenza-like illness. These graphs do not represent confirmed influenza.

Graphs show proportion of total weekly cases seen in a particular syndrome/subsyndrome over the total number of cases seen. Weeks run Sunday through Saturday and the last week shown may be artificially high or low depending on how much data is available for the week.



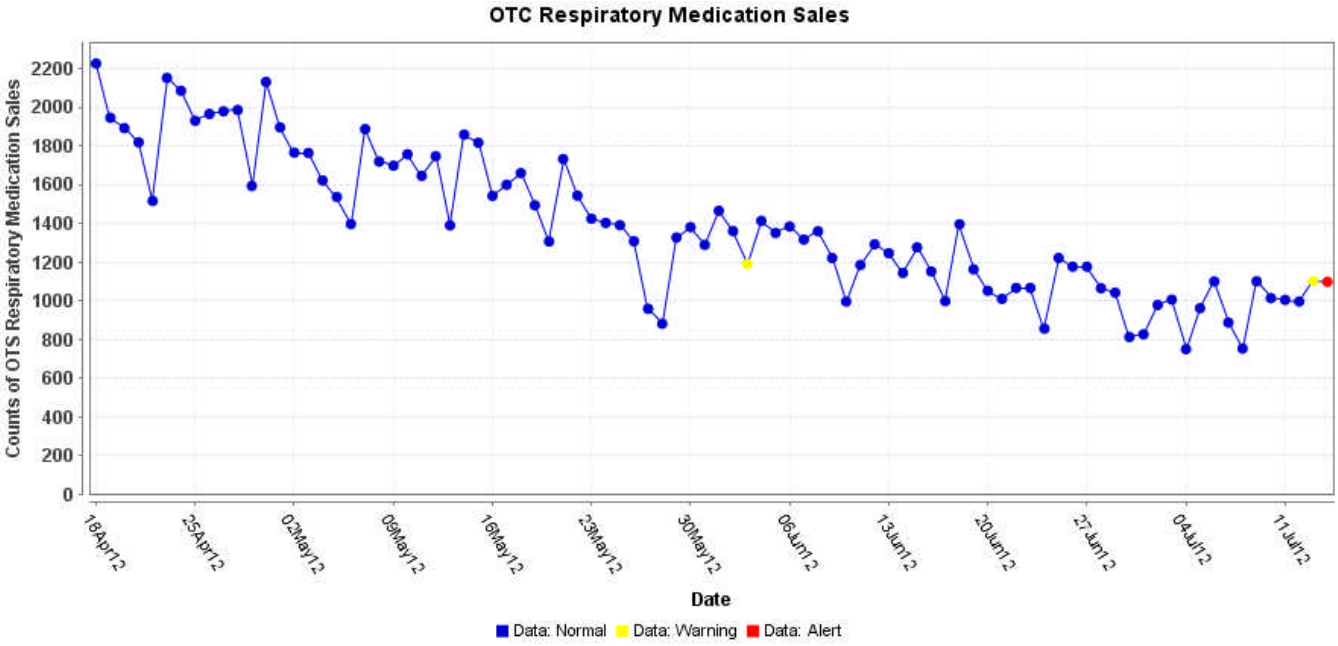
* Includes 2011 and 2012 Maryland ED visits for ILI in Metro Baltimore (Region 3), Maryland NCR (Region 5), and Maryland Total



*Includes 2012 Maryland ED visits for ILI in Region 1, 2, 3, 4, and 5

OVER-THE-COUNTER (OTC) SALES FOR RESPIRATORY MEDICATIONS:

Graph shows the daily number of over-the-counter respiratory medication sales in Maryland at a large pharmacy chain.



PANDEMIC INFLUENZA UPDATE / AVIAN INFLUENZA-RELATED REPORTS

WHO update: The current WHO phase of pandemic alert for avian influenza is 3. Currently, the avian influenza H5N1 virus continues to circulate in poultry in some countries, especially in Asia and northeast Africa. This virus continues to cause sporadic human infections with some instances of limited human-to-human transmission among very close contacts. There has been no sustained human-to-human or community-level transmission identified thus far.

In **Phase 3**, an animal or human-animal influenza reassortant virus has caused sporadic cases or small clusters of disease in people, but has not resulted in human-to-human transmission sufficient to sustain community-level outbreaks. Limited human-to-human transmission may occur under some circumstances, for example, when there is close contact between an infected person and an unprotected caregiver. However, limited transmission under such restricted circumstances does not indicate that the virus has gained the level of transmissibility among humans necessary to cause a pandemic.

As of July 6, 2012, the WHO-confirmed global total of human cases of H5N1 avian influenza virus infection stands at 607, of which 358 have been fatal. Thus, the case fatality rate for human H5N1 is approximately 59%.

AVIAN INFLUENZA (MEXICO): 11 July 2012, Around 2.5 million birds at poultry farms in western Mexico have been slaughtered over the past 3 weeks in an attempt to contain an [avian influenza] outbreak, the country's agriculture ministry said on Tuesday [10 Jul 2012]. The virus responsible for the outbreak, H7N3, has occasionally caused human disease in various parts of the world, according to the United Nations, but has not shown itself to be easily transmittable between humans. Officials visited 148 poultry farms, finding avian influenza in 31 farms, while 34 came up negative and results for the remainder were pending. Of the 3.4 million affected poultry, "the number of birds that have been sacrificed as a control and eradication measure as of (Mon 10 Jul 2012) is 2.5 million," the ministry said in a statement. The outbreak was first detected on 20 Jun 2012 in Jalisco state, and the Mexican government declared a national animal health emergency on 2 Jul 2012 in the face of the aggressive epidemic. After importing one million vaccines from Pakistan, the farming officials said they have developed a seed-based vaccine that they will deliver to 4 laboratories to produce over 80 million doses initially. Health officials keep a close watch on such outbreaks since so-called swine flu [influenza A/(H1N1) virus] broke out in Mexico in 2009. The H1N1 virus spread into a global pandemic that claimed the lives of 17,000 people.

NATIONAL DISEASE REPORTS

VIBRIO PARAHAEMOLYTICUS (NEW YORK): 13 July 2012, The harvesting of shellfish from particular areas in the Town of Oyster Bay (Nassau County, Long Island, NY) is temporarily prohibited, effective immediately, due to an illness outbreak caused by naturally occurring marine bacteria in shellfish, the NYS Department of Environmental Conservation (DEC) announced. The closure impacts approximately 1980 acres on the north shore of the Town of Oyster Bay, including all the underwater lands in Oyster Bay Harbor that lie westerly of a line extending southerly from the stone house on Plum Point (Centre Island) to the northwestern most point of Cove Point on Cove Neck. To protect public health, all harvesting of shellfish from that area is prohibited until further notice. This action was taken after DEC and the New York State Department of Health (DOH) documented illnesses in 3 people who ate raw or partially cooked shellfish in Nassau County. DOH determined the illnesses were associated with the consumption of shellfish or foods which were cross contaminated with raw shellfish and DEC determined the source of the shellfish. An additional 5 illnesses were reported to DEC by 3 other states that received shellfish harvested in Oyster Bay Harbor. When ingested, *V. parahaemolyticus* may cause diarrhea, nausea and vomiting, often accompanied by abdominal cramps, fever and chills. Symptoms usually occur within 24 hours of ingestion and full recovery may take up to a week. More severe illness may occur in people with compromised immune systems or underlying chronic diseases. Consumers experiencing symptoms consistent with illness caused by *V. parahaemolyticus*, and who have recently consumed raw shellfish, should contact their physician. To prevent additional illnesses from occurring, DEC is prohibiting the harvest of shellfish from Oyster Bay Harbor, effective immediately. This closure will remain in effect until samples collected by DEC indicate that shellfish from the affected area are no longer a threat to consumers. No other harvest areas have been implicated in these *V. parahaemolyticus* illnesses. Consumers possessing shellfish with tags listing Oyster Bay Harbor as the harvest area should not eat the shellfish. All shellfish harvesters, shippers, re-shippers, processors, restaurants and retail food establishments are advised to check the identity tags on all containers of shellfish in their inventories. If the tag indicates the harvest area was Oyster Bay Harbor and had a harvest date before 13 Jul 2012, the product must not be sold. Wholesale shellfish dealers should also check their sales records to determine whether they have handled or sold any shellfish from the affected harvest area from 1 Jun 2012 through 12 Jul 2012. If so, they should immediately contact any customers that may have received shellfish from the area and advise them not to sell or serve those shellfish. (Food Safety Threats are listed in Category A on the CDC List of Critical Biological Agents) *Non-suspect case

E. COLI (OHIO): 12 July, 2012, The number of people sickened by *E. coli O157* in Germantown has risen to 55, according to Public Health-Dayton & Montgomery County officials. The health department is investigating the outbreak, which appears to have stemmed from a customer appreciation picnic on 3 Jul 2012 at Neff's Lawn Care. Bill Wharton, a spokesman for the health department, said 19 additional cases were identified on Wed 11 Jul 2012, with 10 hospitalizations since the event. Wharton did not know the exact status of the hospitalized patients. None of the illnesses were life-threatening. "For our community, this is a fairly large outbreak of *E. coli O157*," Wharton said. The health department is not expecting the illness count to rise significantly, because the normal incubation period for this strain of *E. coli* is 8 days, and Wed 11 Jul 2012 was the 8th day since the picnic. The number has grown over time because those who were feeling ill heard about illnesses from the picnic and contacted the health department, Wharton said. Bob Neff, owner of the family business that hosts the annual picnic, said he's heartbroken that people became sick from carry-in food eaten at the event. "It's bad when something happens and you have no control," he told News Center 7. He said about 300 people ate food that was mostly prepared off site. He and his sons grilled some meat but do not believe that was the source of the infection because they ate leftovers for several days and did not become ill. "All of a sudden, your life is turned upside down by one call from the health department," he said. The picnic has been a growing event since 2007. That's the year that Neff's wife died and friends raised money to help support the family and their new business. "(The 4th of July party) became a thank-you for friends and family, and then we had customers come," he said. The family has not decided whether they will hold the picnic next year. (Food Safety Threats are listed in Category A on the CDC List of Critical Biological Agents) *Non-suspect case

SALMONELLOSIS (CALIFORNIA): 11 July 2012, In a 3-week span, 2 newborn baby girls born at Doctors Medical Center in Modesto, CA contracted salmonellosis. The scariest part for expecting parents is that hospital administrators and county health officials have not been able to pinpoint how the

infants treated at the hospital got the bacteria in their systems. "We don't have an answer yet. However, there has been intense investigation," said Dr. John Walker, Stanislaus County Public Health. One of the infants' moms sparked the investigation. She suspects that salmonella-tainted formula given to her newborn while in the neonatal intensive care unit caused the illness. In a statement, a hospital administrator said: "Doctors Medical Center takes this issue extremely seriously, and after thorough review, it appears that all hospital policies and protocols were followed. It appears that this was an isolated event." Walker says salmonella poisoning in newborns is extremely rare. The biggest concern is whether the infection would turn into an outbreak, which hasn't happened. "Fortunately, this doesn't appear to be a widespread issue; however, state department of health is looking closely, and hopefully all of us get answers soon," said Walker. No other cases have been diagnosed within the period. (Food Safety Threats are listed in Category A on the CDC List of Critical Biological Agents) *Non-suspect case

INTERNATIONAL DISEASE REPORTS

HANTAVIRUS (TAIWAN): 13 July 2012, The Centers for Disease Control (CDC) reported Thursday [12 Jul 2012] the year's 1st case of hemorrhagic fever with renal syndrome (HFRS) caused by hantavirus and urged the public to avoid exposure to rodents, which are carriers of the virus. "The 63-year-old pig farmer from Kaohsiung has been discharged from the hospital following treatment," said CDC Deputy Director-General Chou Jih-haw. "Although the infection was likely caused by rodent bites, further laboratory tests are needed for confirmation," he said. The patient began displaying symptoms of fever, vomiting, stomach pain, muscle soreness and shortage of breath 18 Jun [2012], one month after being bitten on the toes by a rodent, according to a press statement released by the CDC. Blood test results obtained 11 Jul [2012] confirmed that the man was infected with the [a] hantavirus, which caused HFRS, it said. With a hantavirus mortality rate of as high as 10 per cent, Chou urged those active in areas where rodents are present to take extra precautions to protect themselves from the disease. Previous studies have concluded that individuals residing or working in wet markets tend to be in the high-risk group, he added. People usually get infected through exposure to the urine and droppings of infected rodents or after exposure to dust, which can also carry the virus. Human-to-human transmission is rare. (Emerging Infectious Diseases are listed in Category C on the CDC List of Critical Biological Agents) *Non-suspect case

LEGIONELLOSIS (SCOTLAND): 12 July 2012, The legionellosis outbreak has claimed its 100th victim, the Scottish Government revealed. Health experts said this was the 1st new case for a week and believe the worst of the outbreak is over. 3 men with Legionnaires' disease have already died and 2 people remain in intensive care. Health Secretary Nicola Sturgeon said: "The latest case of Legionnaires' has been ill for some time, and has now been identified as a confirmed case. Over recent days as expected, we have not seen as many cases of Legionnaires' [disease] as we did at the peak of the outbreak, and this continues to offer reassurance that the outbreak remains under control." A total of 52 people are confirmed as having the disease and 48 are suspected to have the bug. The outbreak began in Edinburgh at the end of May [2012] and investigations to locate the source of the disease are on-going. Health and safety experts still believe the outbreak began in an industrial cooling tower in the south west of the city but experts have warned the exact source of the bug might never be traced. A number of victims have already started legal proceedings to find out how the disease was able to get into the air and why more was not done to prevent the outbreak. Some have revealed they will seek compensation for their ill-health if and when a company is found to have been responsible for the potentially fatal disease. All 3 men who have died were all from the Edinburgh area and health experts said they had underlying health conditions. Dr Richard Othieno, Consultant in Public Health Medicine, NHS Lothian, said: "While this is the 1st new case in more than a week, it is not unexpected. As the outbreak draws to a close we can expect to see a small number of cases coming forward who have experienced mild symptoms initially and have sought medical attention later in their illness." (Water Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

SALMONELLOSIS (THAILAND): 11 July 2012, The number of students who have fallen ill from salmonellosis at a Chiang Mai school has risen to 460. Health authorities say the students fell ill after eating 3-day-old boiled eggs tainted with salmonellae. Dr Pornthep Siriwanarangsan, director-general of the Disease Control Department, said Chiang Mai Welfare School students became sick after eating donated eggs that were boiled 3 days previously and not reheated before they were consumed, allowing the bacteria to develop. On Sunday evening, 8 Jul 2012, about 900 students of the school, located in Mae Rim district, ate chili curry and donated boiled eggs at the cafeteria. After the meal, 75 of the students became ill with headaches, high fever, nausea and diarrhea. The number of sick students increased to 460 yesterday [10 Jul 2012], health authorities said. Of them, 290 are recovering at home; 123 are still in 9 hospitals, and 8 students are critically ill. Another 47 students are being treated at the school's gym, which has been turned into a field hospital as there are not enough hospital beds available to accommodate all the sick students. Officials have tracked down the source of the eggs, part of a much larger number which were distributed in the area. Surasing Wisarutrat, of the Chiang Mai public health office, said officials have traced about 10 000 donated eggs distributed to the school and other places in the district and which come from the same source. Elsewhere, the eggs had been re-boiled before consumption, which ensured no one fell ill after eating them. (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

E. COLI (NEW BRUNSWICK): 9 July 2012, There have been 4 confirmed cases of a potentially deadly strain of *E. coli* in the Fredericton area, according to public health officials. *E. coli O157:H7* is the same type that killed 7 people in Walkerton, Ontario, in 2000. The source of the infectious bacteria that multiplies quickly remains unclear. Public health is investigating to determine where the affected individuals in Fredericton ate, what they ate, and whether the cases might be connected, said Dr Denis Allard, the province's acting chief medical officer of health, in a statement. "Pending lab results could determine if the bacteria share the same DNA pattern, suggesting a common source," Allard said. It could be next week before those results are available, he added, declining any further comment. Allard says 3 of the Fredericton cases were hospitalized. 2 have been treated and released. The main symptom for this type of *E. coli* is bloody diarrhea, but it can also cause vomiting and stomach cramps. Unlike other illnesses, there is no fever. The confirmed cases come on the heels of an outbreak in Miramichi in April 2012. At least 13 people were infected with the potentially deadly strain and another 11 people may have also been infected by the same strain, officials had said. Romaine lettuce was recently determined to be the likely source of that outbreak. (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

OTHER RESOURCES AND ARTICLES OF INTEREST

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: http://preparedness.dhmh.maryland.gov/

Maryland's Resident Influenza Tracking System: http://dhmh.maryland.gov/flusurvey
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NOTE: This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail me. If you have information that is pertinent to this notification process, please send it to me to be included in the routine report.

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Table: Text-based Syndrome Case Definitions and Associated Category A Conditions

Syndrome	Definition	Category A Condition
Botulism-like	ACUTE condition that may represent exposure to botulinum toxin ACUTE paralytic conditions consistent with botulism: cranial nerve VI (lateral rectus) palsy, ptosis, dilated pupils, decreased gag reflex, media rectus palsy. ACUTE descending motor paralysis (including muscles of respiration) ACUTE symptoms consistent with botulism: diplopia, dry mouth, dysphagia, difficulty focusing to a near point.	Botulism
Hemorrhagic Illness	SPECIFIC diagnosis of any virus that causes viral hemorrhagic fever (VHF): yellow fever, dengue, Rift Valley fever, Crimean-Congo HF, Kyasanur Forest disease, Omsk HF, Hantaan, Junin, Machupo, Lassa, Marburg, Ebola ACUTE condition with multiple organ involvement that may be consistent with exposure to any virus that causes VHF ACUTE blood abnormalities consistent with VHF: leukopenia, neutropenia, thrombocytopenia, decreased clotting factors, albuminuria	VHF
Lymphadenitis	ACUTE regional lymph node swelling and/ or infection (painful bubo- particularly in groin, axilla or neck)	Plague (Bubonic)
Localized Cutaneous Lesion	SPECIFIC diagnosis of localized cutaneous lesion/ ulcer consistent with cutaneous anthrax or tularemia ACUTE localized edema and/ or cutaneous lesion/ vesicle, ulcer, eschar that may be consistent with cutaneous anthrax or tularemia INCLUDES insect bites EXCLUDES any lesion disseminated over the body or generalized rash EXCLUDES diabetic ulcer and ulcer associated with peripheral vascular disease	Anthrax (cutaneous) Tularemia
Gastrointestinal	ACUTE infection of the upper and/ or lower gastrointestinal (GI) tract SPECIFIC diagnosis of acute GI distress such as Salmonella gastroenteritis ACUTE non-specific symptoms of GI distress such as nausea, vomiting, or diarrhea EXCLUDES any chronic conditions such as inflammatory bowel syndrome	Anthrax (gastrointestinal)

Syndrome Definitions for Diseases Associated with Critical Bioterrorism-associated Agents
(continued from previous page)

Syndrome	Definition	Category A Condition
Respiratory	ACUTE infection of the upper and/ or lower respiratory tract (from the oropharynx to the lungs, includes otitis media) SPECIFIC diagnosis of acute respiratory tract infection (RTI) such as pneumonia due to parainfluenza virus ACUTE non-specific diagnosis of RTI such as sinusitis, pharyngitis, laryngitis ACUTE non-specific symptoms of RTI such as cough, stridor, shortness of breath, throat pain EXCLUDES chronic conditions such as chronic bronchitis, asthma without acute exacerbation, chronic sinusitis, allergic conditions (Note: INCLUDE *acute exacerbation* of chronic illnesses.)	Anthrax (inhalational) Tularemia Plague (pneumonic)
Neurological	ACUTE neurological infection of the central nervous system (CNS) SPECIFIC diagnosis of acute CNS infection such as pneumoccocal meningitis, viral encephailitis ACUTE non-specific diagnosis of CNS infection such as meningitis not otherwise specified (NOS), encephailitis NOS, encephalopathy NOS ACUTE non-specific symptoms of CNS infection such as meningismus, delerium EXCLUDES any chronic, hereditary or degenerative conditions of the CNS such as obstructive hydrocephalus, Parkinson's, Alzheimer's	Not applicable
Rash	ACUTE condition that may present as consistent with smallpox (macules, papules, vesicles predominantly of face/arms/legs) SPECIFIC diagnosis of acute rash such as chicken pox in person > XX years of age (base age cut-off on data interpretation) or smallpox ACUTE non-specific diagnosis of rash compatible with infectious disease, such as viral exanthem EXCLUDES allergic or inflammatory skin conditions such as contact or seborrheaic dermatitis, rosacea EXCLUDES rash NOS, rash due to poison ivy, sunburn, and eczema	Smallpox
Specific Infection	ACUTE infection of known cause not covered in other syndrome groups, usually has more generalized symptoms (i.e., not just respiratory or gastrointestinal) INCLUDES septicemia from known bacteria INCLUDES other febrile illnesses such as scarlet fever	Not applicable

Syndrome Definitions for Diseases Associated with Critical Bioterrorism-associated Agents
(continued from previous page)

Syndrome	Definition	Category A Condition
Fever	ACUTE potentially febrile illness of origin not specified INCLUDES fever and septicemia not otherwise specified INCLUDES unspecified viral illness even though unknown if fever is present EXCLUDE entry in this syndrome category if more specific diagnostic code is present allowing same patient visit to be categorized as respiratory, neurological or gastrointestinal illness syndrome	Not applicable
Severe Illness or Death potentially due to infectious disease	ACUTE onset of shock or coma from potentially infectious causes EXCLUDES shock from trauma INCLUDES SUDDEN death, death in emergency room, intrauterine deaths, fetal death, spontaneous abortion, and still births EXCLUDES induced fetal abortions, deaths of unknown cause, and unattended deaths	Not applicable